

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein, the computer readable program code means comprising:

computer readable program code means for causing a computer to extract an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

computer readable program code means for causing a computer to extract, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester, the retrieval keyword from the Web access log; and

computer readable program code means for causing a computer to calculate a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and create first relation data indicating a relation between the qualitative evaluation value and a retrieval keyword which is input in the access sequence.

Claim 2 (Original): An article of manufacture according to claim 1, further comprising:

computer readable program code means for causing a computer to calculate a quantitative evaluation value of the access sequence based on a quantitative evaluation rule for defining the quantitative evaluation value of a retrieval result of the retrieval system, and

create second relation data indicating a relation of the retrieval keyword which is input in the access sequence, the qualitative evaluation value and the quantitative evaluation value.

Claim 3 (Original): An article of manufacture according to claim 2, further comprising:

computer readable program code means for causing a computer to create a graph indicating a relation of the qualitative evaluation value and the quantitative evaluation value based on the second relation data.

Claim 4 (Original): An article of manufacture according to claim 2, wherein
the quantitative evaluation value comprises a need value for a retrieval result which increases as the number of inputs of the retrieval keyword increases; and
the quantitative evaluation rule comprises a rule under which the need value increases as the number of inputs of the retrieval keyword increases.

Claim 5 (Original): An article of manufacture according to claim 2, wherein
the Web access log further relates access time data to the first identification data and the second identification data; and
the quantitative evaluation value calculating program code means creates the second relation data for each time period based on the access time data, and which further comprises:
computer readable program code means for causing a computer to create trend data for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value based on the second relation data for each time period.

Claim 6 (Original): An article of manufacture according to claim 5, wherein
the Web access log further relates an access time data to the first identification data
and the second identification data; and

the quantitative evaluation value calculating program code means creates the second
relation data for each time period based on the access time data, and which further comprises:

computer readable program code means for causing a computer to calculate the
qualitative evaluation value and the quantitative evaluation value for each category and for
each time period based on the second relation data and category data which relates the
retrieval keyword to a category to which the keyword belongs; and

computer readable program code means for causing a computer to create trend data
for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation
value and the quantitative evaluation value for each time period and each category.

Claim 7 (Original): An article of manufacture according to claim 6, wherein the trend
data obtaining program code means comprises:

computer readable program code means for causing a computer to detect a region to
which the retrieval keyword belongs of regions determined by the boundaries at each time
period;

computer readable program code means for causing a computer to determine whether
the retrieval keyword belonging region changes; and

computer readable program code means for causing a computer to add a message
corresponding to a change in the region to a retrieval keyword in which the region is
changed, and

the trend data includes data indicating a result produced by adding the message to the
retrieval keyword in which the region is changed.

Claim 8 (Original): An article of manufacture according to claim 5, wherein the trend data obtaining program code means calculates a moving distance and a moving direction of the retrieval keyword at each switching of the time period based on the qualitative evaluation value and the quantitative evaluation value of each time period, and

the trend data includes data indicating the moving distance and the moving direction of the retrieval keyword at each switching of the time period.

Claim 9 (Original): An article of manufacture according to claim 5, wherein the trend data obtaining program code means comprises:

computer readable program code means for causing a computer to calculate a moving distance of the retrieval keyword at each switching of each time period based on the qualitative evaluation value and the quantitative evaluation value of the retrieval keyword at each time period;

computer readable program code means for causing a computer to determine whether or not the moving distance exceeds a threshold;

computer readable program code means for causing a computer to acquire the moving direction of the retrieval keyword when the moving distance exceeds the threshold; and

computer readable program code means for causing a computer to add a message corresponding to the moving direction to a retrieval keyword in which the moving distance exceeds the threshold, and

the trend data includes data produced by adding the message to the retrieval keyword in which the moving distance exceeds the threshold.

Claim 10 (Original): An article of manufacture according to claim 5, further comprising:

computer readable program code means for causing a computer to arrange indexes indicating the retrieval keyword of each time period corresponding to the qualitative evaluation value and the quantitative evaluation value on a space which adopts the qualitative evaluation value and the quantitative evaluation value as multiple axes, based on the trend data and display a graph by connecting the indexes with lines corresponding to an elapse order of the time period.

Claim 11 (Original): An article of manufacture according to claim 2, wherein the Web access log relates the first identification data and the second identification data to access time data, and

the quantitative evaluation value calculating program code means creates the second relation data for each time period based on the access time data, and which further comprises:

computer readable program code means for causing a computer to calculate the qualitative evaluation value and the quantitative evaluation value on the category of each time period based on category data which relates the retrieval keyword to a category to which the retrieval keyword belongs and relation data of each time period; and

computer readable program code means for causing a computer to create trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value on the category.

Claim 12 (Original): An article of manufacture according to claim 11, further comprising:

computer readable program code means for causing a computer to arrange indexes indicating the category of each time period corresponding to the qualitative evaluation value and the quantitative evaluation value on a space which adopts the qualitative evaluation value and the quantitative evaluation value as multiple axes, based on the trend data and display a graph by connecting the indexes with lines corresponding to an elapse order of the time period.

Claim 13 (Original): An article of manufacture according to claim 1, wherein the Web access log further relates the second identification data to reference information including a retrieval keyword,

the access sequence extracting program code means comprises a program code means for causing a computer to extract, when the reference information indicates the retrieval system, an access sequence including an access to contents related to the reference information,

the retrieval keywords extracting program code means comprises a program code for causing a computer to extract the retrieval keyword included in the reference information; and

the qualitative evaluation value calculating program code means comprises a program code means for causing a computer to calculate a qualitative evaluation value of the access sequence after the retrieval keyword included in the reference information is input.

Claim 14 (Original): An article of manufacture according to claim 1, wherein
a retrieval keyword to be analyzed is input in the access sequence and contents
indicated by second identification data related to the retrieval keyword to be analyzed are
accessed after the retrieval keyword to be analyzed is input,

the qualitative evaluation rule comprises a rule which, based on the extracted keyword
and relation data between the retrieval keyword to be analyzed and second identification data
indicating contents which increases a success degree when the contents are accessed after the
retrieval keyword to be analyzed is input, increases the success degree of the access
sequence, and

the qualitative evaluation value comprises the success degree.

Claim 15 (Original): An article of manufacture according to claim 14, wherein the
qualitative evaluation rule increases the success degree as the number of accesses until the
contents to be accessed indicated by the second identification data related with the retrieval
keyword to be analyzed is accessed after the retrieval keyword to be analyzed is input,
decreases.

Claim 16 (Original): An article of manufacture according to claim 1, wherein the
Web access log relates the first identification data and the second identification data to access
time data for each access,

the qualitative evaluation rule comprises a rule which increases the satisfaction degree
of the access requester as a time interval from an access after the retrieval keyword is input to
a last access increases, and

the qualitative evaluation value comprises the satisfaction degree.

Claim 17 (Original): An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein, the computer readable program code means comprising:

computer readable program code means for causing a computer to extract an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

computer readable program code means for causing a computer to extract, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester and the retrieval keyword is input in the access sequence, the retrieval keyword which is input in the access sequence from the Web access log; and

computer readable program code means for causing a computer to calculate a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and create first relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

Claim 18 (Original): An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein, the computer readable program code means comprising:

computer readable program code means for causing a computer to extract, based on a Web access log which relates first identification data indicating an access requester, second identification data indicating contents to be accessed, and reference information, an access sequence indicating a continuous access including an access to the contents to be accessed

indicated by the second identification data by a same requester when the reference information indicates a retrieval system;

computer readable program code means for causing a computer to extract a retrieval keyword included in the reference information when the reference information indicates the retrieval system; and

computer readable program code means for causing a computer to calculate a qualitative evaluation value of the access sequence after inputting the extracted retrieval keyword based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and create first relation data indicating a relation between the qualitative evaluation value and the retrieval keyword corresponding to the access sequence.

Claim 19 (Original): An article of manufacture comprising a computer usable medium having computer readable program code means embodied therein, the computer readable program code means comprising:

computer readable program code means for causing a computer to extract, based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed, a sub-access sequence indicating a continuous access by a same requester;

computer readable program code means for causing a computer to extract the retrieval keyword when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword input to the retrieval system by the requester; and

computer readable program code means for causing a computer to calculate a qualitative evaluation value of the sub-access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and

create relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

Claim 20 (Original): An article of manufacture according to claim 19, wherein the sub-access sequence has a starting end at which retrieval result contents are accessed and a terminal end at which a next continuous access starts.

Claim 21 (Original): An article of manufacture according to claim 19, wherein the sub-access sequence has a starting end at which retrieval result contents are accessed and a terminal end which is a last access preceding to a next starting end.

Claim 22 (Original): An article of manufacture according to claim 19, wherein the sub-access sequence has a starting end at which retrieval result contents are accessed and a terminal end which is a last access preceding to a next starting end when the next starting end is found, and having the starting end and a terminal end at which the continuous access ends when the next starting end is not found.

Claim 23 (Currently Amended): A retrieval keyword analyzing system comprising:
~~means for extracting~~ an access sequence extracting unit configured to extract an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

~~means for extracting~~ a keyword extracting unit configured to extract, when the Web access log relates second identification data indicating a retrieval system to a retrieval

keyword input to the retrieval system by the requester, the retrieval keyword from the Web access log; and

~~means for calculating~~ a satisfaction degree calculation unit configured to calculate a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and ~~creating~~ to create first relation data indicating a relation between the qualitative evaluation value and a retrieval keyword which is input in the access sequence.

Claim 24 (Currently Amended): The retrieval keyword analyzing system according to claim 23, further comprising:

~~means for calculating~~ a need value calculation unit configured to calculate a quantitative evaluation value of the access sequence based on a quantitative evaluation rule for defining the quantitative evaluation value of a retrieval result of the retrieval system, and ~~creating~~ to create second relation data indicating a relation of the retrieval keyword which is input in the access sequence, the qualitative evaluation value and the quantitative evaluation value.

Claim 25 (Currently Amended): A retrieval keyword analyzing system comprising:

~~means for extracting~~ an access sequence extracting unit configured to extract an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

~~means for extracting~~ a keyword extracting unit configured to extract, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester and the retrieval keyword is

input in the access sequence, the retrieval keyword which is input in the access sequence from the Web access log; and

~~means for calculating~~ a satisfaction degree calculation unit configured to calculate a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and ~~creating~~ to create first relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

Claim 26 (Currently Amended): A retrieval keyword analyzing system comprising:

~~means for extracting~~ an access sequence extracting unit configured to extract, based on a Web access log which relates first identification data indicating an access requester, second identification data indicating contents to be accessed, and reference information, an access sequence indicating a continuous access including an access to the contents to be accessed indicated by the second identification data by a same requester when the reference information indicates a retrieval system;

~~means for extracting~~ a keyword extracting unit configured to extract a retrieval keyword included in the reference information when the reference information indicates the retrieval system; and

~~means for calculating~~ a satisfaction degree calculation unit configured to calculate a qualitative evaluation value of the access sequence after inputting the extracted retrieval keyword based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and ~~creating~~ to create first relation data indicating a relation between the qualitative evaluation value and the retrieval keyword corresponding to the access sequence.

Claim 27 (Currently Amended): A retrieval keyword analyzing system comprising:

~~means for extracting~~ a sub-access sequence extracting unit configured to extract,

based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed, a sub-access sequence indicating a continuous access by a same requester and having a starting end at which retrieval result contents are accessed and a terminal end at which a next continuous access starts;

~~means for extracting~~ a keyword extracting unit configured to extract the retrieval

keyword when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword input to the retrieval system by the requester; and

~~means for calculating~~ a satisfaction degree calculation unit configured to calculate a

qualitative evaluation value of the sub-access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and ~~creating~~ to create relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

Claim 28 (Original): A retrieval keyword analyzing method comprising the steps of:

extracting an access sequence indicating a continuous access by a same requester

based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

extracting, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester, the retrieval keyword from the Web access log; and

calculating a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the

retrieval system, and creating first relation data indicating a relation between the qualitative evaluation value and a retrieval keyword which is input in the access sequence.

Claim 29 (Original): The retrieval keyword analyzing method according to claim 28, further comprising the step of:

calculating a quantitative evaluation value of the access sequence based on a quantitative evaluation rule for defining the quantitative evaluation value of a retrieval result of the retrieval system, and creating second relation data indicating a relation of the retrieval keyword which is input in the access sequence, the qualitative evaluation value and the quantitative evaluation value.

Claim 30 (Original): The retrieval keyword analyzing method according to claim 29, wherein

the Web access log further relates access time data to the first identification data and the second identification data; and

the quantitative evaluation value calculating means creates the second relation data for each time period based on the access time data, and which further comprises the step of:

creating trend data for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value based on the second relation data for each time period.

Claim 31 (Original): The retrieval keyword analyzing method according to claim 29, wherein

the Web access log further relates an access time data to the first identification data and the second identification data; and

the quantitative evaluation value calculating means creates the second relation data for each time period based on the access time data, and which further comprises the steps of:

calculating the qualitative evaluation value and the quantitative evaluation value for each category and for each time period based on the second relation data and category data which relates the retrieval keyword to a category to which the keyword belongs; and

creating trend data for the retrieval keyword, the trend data indicating a transition of the qualitative evaluation value and the quantitative evaluation value for each time period and each category.

Claim 32 (Original): A retrieval keyword analyzing method comprising the steps of:

extracting an access sequence indicating a continuous access by a same requester based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed;

extracting, when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword which is input to the retrieval system by the requester and the retrieval keyword is input in the access sequence, the retrieval keyword which is input in the access sequence from the Web access log; and

calculating a qualitative evaluation value of the access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and creating first relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.

Claim 33 (Original): A retrieval keyword analyzing method comprising the steps of:

extracting, based on a Web access log which relates first identification data indicating an access requester, second identification data indicating contents to be accessed, and

reference information, an access sequence indicating a continuous access including an access to the contents to be accessed indicated by the second identification data by a same requester when the reference information indicates a retrieval system;

extracting a retrieval keyword included in the reference information when the reference information indicates the retrieval system; and

calculating a qualitative evaluation value of the access sequence after inputting the extracted retrieval keyword based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and creating first relation data indicating a relation between the qualitative evaluation value and the retrieval keyword corresponding to the access sequence.

Claim 34 (Original): A retrieval keyword analyzing method comprising the steps of:

extracting, based on a Web access log which relates first identification data indicating an access requester to second identification data indicating contents to be accessed, a sub-access sequence indicating a continuous access by a same requester and having a starting end at which retrieval result contents are accessed and a terminal end at which a next continuous access starts;

extracting the retrieval keyword when the Web access log relates second identification data indicating a retrieval system to a retrieval keyword input to the retrieval system by the requester; and

calculating a qualitative evaluation value of the sub-access sequence based on a qualitative evaluation rule for defining the qualitative evaluation value of a retrieval result of the retrieval system, and creating relation data indicating a relation between the extracted retrieval keyword and the qualitative evaluation value.